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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,191	02/27/2002	Aileen Reyes Gibson	5868-3	8334

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EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/086,191	Applicant(s) GIBSON ET AL.	
	Examiner Steve Alvo	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-16 and 19-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over NONNI (4,568,420) in view of DUBREUX (4,734,161) or SMITH et al (3,657,065).

NONNI teaches bleaching pulp using an Eop (sodium hydroxide, oxygen and peroxide) stage in the bleach sequence. SMITH et al adding magnesium hydroxide (column 1, lines 49) during oxygen bleaching to preserve the pulp, e.g. improve its viscosity and increase the brightness. DUBREUX teaches using MgOH (column 1, line 66) during peroxide bleaching to increase the effectiveness of the peroxide (column 3, lines 24-27). It would have been obvious to the artisan to add MgOH to the oxygen and peroxide bleaching stage of NONNI to improve the pulp's viscosity and increase the brightness as taught by SMITH et al or to make the bleaching more economical as taught by DUBREUX. See Tables 5 and 6 of NONNI for decrease viscosity. Obviously the protecting action of the MgOH would increase the viscosity and corresponding strength of the pulp.

Claims 7, 17, 18 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over NONNI (4,568,420) in view of DUBREUX (4,734,161) or SMITH et al (3,657,065) as applied to claim 1 above, and further in view of EP 0 222 674.

EP 0 222 674 teaches using two extraxction stages in a multi-stage bleach sequence similar to the sequences taught by NONNI. EP 0 222 674 teaches that the second extraction stage folling an oxygen extraction stage could include peroxide (Ep). It would have been

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obvious to use peroxide in the second extraction stage in the multi-stage bleach sequence of NONNI to further increase the brightness and improve the viscosity.

Claims 6, 10, 16, 20, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over NONNI (4,568,420) in view of DUBREUX (4,734,161) or SMITH et al (3,657,065) as applied to claim 1 above, and further in view of SJOBLÖM.

If not obvious that the bleach effluent is lowered of COD when MgOH is used, then SJOBLÖM teaches lowering the amount of bleach chemical used lowers the amount of COD discharge. It would have been obvious that that when using MgOH to lower the amount of bleach charge as taught by DUBREUX (4,734,161) or SMITH et al (3,657,065), that the COD would also be lowered as taught by SJOBLÖM.

Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

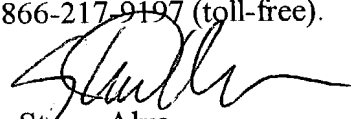
It is not clear if the claimed Eop is a bleaching stage or an extraction stage. The term "Eop" has been interpreted to be an extraction stage in a bleach sequence as that is the conventional meaning in the art of the term "Eop". The term "(based on OH-molar ratio)" would be clearer if written as ", based on OH-molar ratio", e.g. without the parenthesis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 6:00 AM to 2:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steve Alvo
Primary Examiner
Art Unit 1731

msa